

## CLAIMS

1. A gradation display device in which a TV field is divided into a plurality of sub-fields each of which has a predetermined weight of luminance, the device comprising:

5           a gradient detector for detecting a gradient of gradation values of pixels in an incoming image;

          a time-varying gradation-value detector for detecting changes in the gradation values in the pixels with a passage of time;

          an image detector for detecting a magnitude and a direction of  
10 movement of the incoming image according to outputs from the gradient detector and the time-varying gradation-value detector; and

          a signal corrector for correcting signals of the incoming image according to the detected magnitude and direction of the image and the weight of luminance assigned to each of the sub-fields so as to display proper image.

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2. A gradation display device in which a TV field is divided into a plurality of sub-fields each of which has a predetermined weight of luminance, the device comprising:

          a smoothness detector for detecting smoothness of gradation values  
20 of pixels in an incoming image;

          a gradient detector for detecting a gradient of the gradation values of the pixels in the incoming image;

          a time-varying gradation-value detector for detecting changes in the gradation values in the pixels with a passage of time;

25           an image detector for detecting a magnitude and a direction of movement of the incoming image according to outputs from the gradient detector and the time-varying gradation-value detector; and

a signal corrector for correcting signals of the incoming image according to the detected magnitude and direction of the image and the weight of luminance assigned to each of the sub-fields so as to display proper image.

5           3. The gradation display device of Claim 1 or Claim 2, wherein the device separately detects a horizontal component and a vertical component of a direction of movement of an incoming image, and converts gradient and movement of the image into a component in an direction of the gradient to provide proper signal correction.

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4. The gradation display device of Claim 1 or Claim 2, wherein the signal corrector not only controls correction of the gradation values of the incoming image but also controls error-variance.

15           5. The gradation display device of Claim 4, wherein the signal corrector controls the gradation values of the incoming image according to the magnitude of movement of the image and controls signal processing for the error-variance according to a direction of the movement of the image.